AMENDMENTS TO THE DRAWINGS:

No amendments to the drawings are presented herewith.

REMARKS/ARGUMENTS

Claims 1 – 14 remain in this application. No amendments to the Claims have been presented herewith.

No new matter has been.

Claims 1, 2, 7 – 10, and 12 -- 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (6,488,723) in view of Orr (6,039,772). Specifically, the Examiner states:

> Nelson discloses a motor fuel additive composition comprising (a) a fuel conditioner component and (b) a detergent component. The fuel conditioner (a) comprises (i) from 2 to 50 percent by weight of a polar oxygenated hydrocarbon compound and (ii) from about 2 to about 50 percent by weight of an oxygenated compatibilizing agent. The detergent component (b) is selected from the group consisting of (i) a reaction product of a substituted hydrocarbon (A) and an amino compound (B), and (ii) a polybutylamine or polyisobutylamine (see abstract). The polar oxygenated hydrocarbon has an average molecular weight of from about 200 to about 500, and acid number of about 25 to 175, and a saponification number of about 75 to about 200 (col. 7, lines 11 – 33). The oxygenated compatibilizing agent has a solubility parameter of from about 7.0 to about 14.0 and moderate to strong hydrogen-bonding capacity (col. 7, lines 53 – 62). The hydrocarbon compound (A) of the detergent component is a substituted hydrocarbon of the formula R_1-X wherein R_1 is a hydrocarbyl radical having a molecular weight in the range of about 105 to 10,000 and X is selected from the group consisting of halogens, succinic anhydride and succinic dibasic acid (col. 4, lines 52 – 65). The amino compound (B) is of the formula H—(NH—$(A)_m)_n$—Y—R_2 wherein Y, A, m, n, and R_2 are identical to those in the instant claim 8 (col. 5, lines 1 – 21). The polybutylamine or polyisobutylamine is identical to that in instant claim 8 (col. 6, lines 30 – 46). Further, the composition includes other additives such as methyl tertiary butyl ether (MTBE) and ethyl tertiary butyl ether (ETBE), alcohols such as methanol or ethanol, and additives that are "typically

employed in motor fuels" such as common anti-knock additives (col. 9, lines 56 – 60). Nelson also discloses examples wherein the additive composition was added to a base fuel in amounts between 40 ppm and 1000 ppm (Col. 10, lines 44 – 50; col. 11, lines 14 – 20).

Nelson is silent with respect to the composition comprising methylcyclopentadienyl manganese tricarbonyl (MMT).

Orr discloses a fuel additive composition comprising MMT and a fuel conditioner. The conditioner comprises polar oxygenated hydrocarbons, such as aliphatic alcohols, and methyl propyl ketone, and oxygenated compatibilizing agent. MMT is included at low amounts of from about 0.001 to about 0.1 gram/gallon as a known anti-knock additive (col. 1, lines 30 – 45; col. 12, lines 17 –28; claim 12).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize MMT as the anti-knock additive in Nelson, as it is an anti-knock additive "typically employed in motor fuels", and would therefore reduce engine knocking and increase octane rating.

Applicant respectfully traverses these rejections. The key to Applicant's invention is the ability to add the MMT anti-knock additive to the additive package instead of to the gasoline motor fuel prior to the additive package being added to the gasoline motor fuel. In addition, the claimed invention provides for maintaining the advantages of the MMT anti-knock additive at lower levels than when it is added to the gasoline motor fuel before an additive package not containing the MMT anti-knock material.

A fair reading of the Nelson ('723) reference discloses an additive package for motor fuels having any anti-knock materials previously blended into the base motor fuel before addition of the additive package of Nelson ('723). Because of the unpredictable nature of organic compositions, adding the MMT to the additive package before mixing into the fuel as opposed to adding the MMT to the fuel before or after mixing in the additive package is not obvious. This is confirmed by the fact that the amount of MMT required while maintaining the desired level of anti-knock performance and ORI reduction is realized with lower amounts of MMT when it is mixed into the additive

package of the claimed invention as opposed to being mixed into the fuel before or after mixing in the claimed additive package.

There is nothing in the Nelson ('723) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for reducing the amount of MMT required to realize the desired level of anti-knock and ORI reduction by adding the MMT to the other components of the claimed additive package instead of adding the MMT to the fuel directly before or after adding any other additives.

A fair reading of the Orr ('772) reference discloses the use of C1 – C6 alcohols in amounts up to 30% by volume are required to prevent HGM build up formed by burning MMT in gasoline fuels (see for example, Col. 5, lines 10 – 30, and Col. 6, lines 10 – 39).

There is nothing in the Orr ('772) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for the use of the additive composition of Nelson ('723), nor the unexpected ability to reduce the amount of MMT while retaining desired levels of ORI reduction and anti-knock.

Clearly, when viewed in this light the Nelson ('723) reference nor the Orr ('772) reference disclose, teach, or suggest the use of an additive composition allowing for lower levels of MMT while retaining engine performance as claimed in Applicants' present invention.

Claims 1 – 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson in view of Cunningham (5,679,116). Specifically, the Examiner states:

> The discussion of Nelson in paragraph 5 above is herein incorporated by reference.
>
> Nelson is silent with respect the composition comprising MMT, and the order in which the additive is added to a base fuel.
>
> Cunningham discloses a fuel additive composition comprising MMT, a detergent, polar oxygenated hydrocarbons, and organic solvents, which could be oxygenated compatibilizing agents (col. 2, lines 12 – 67; col. 11, lines 23 – 30). Further, MMT is included at low amounts in the range of about 0.0078 to about 0.25 g/gal (col. 14, lines 19 – 60). The inclusion of MMT proves to be beneficial as well by enhancing the performance of the detergent (col. 9, lines 1 – 6). Additionally, it is preferable to blend the components of the additive composition with a base fuel concurrently, but they can also be added to the

> base fuel either individually or in various subcombinations (col. 15, lines 44 – 52).
>
> It would have been obvious to one of ordinary skill in the art to combine the teachings of Nelson and Cunningham in order to utilize MMT as an anti-knock additive, as well as to include the advantages of performance as disclose by Cunningham.

Applicant respectfully traverses these rejections. The key to Applicant's invention, as mentioned above, is an additive package for motor fuels having any anti-knock materials previously blended into the base motor fuel before addition of the additive package of Nelson ('723). Because of the unpredictable nature of organic compositions, adding the MMT to the additive package before mixing into the fuel as opposed to adding the MMT to the fuel before or after mixing in the additive package is not obvious. This is confirmed by the fact that the amount of MMT required while maintaining the desired level of anti-knock performance and ORI reduction is realized with lower amounts of MMT when it is mixed into the additive package of the claimed invention as opposed to being mixed into the fuel before or after mixing in the claimed additive package.

There is nothing in the Nelson ('723) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide for reducing the amount of MMT required to realize the desired level of anti-knock and ORI reduction by adding the MMT to the other components of the claimed additive package instead of adding the MMT to the fuel directly before or after adding any other additives.

A fair reading of the Cunningham ('116) reference discloses an additive composition which is suitable for reducing the fouling of fuel induction systems and which may contain MMT (see for example, Col. 1, lines 14 – 20). The compositions of Cunningham ('116) do not teach Applicants' claimed composition, but instead only suggest similar classes of components without teaching how to arrive at Applicants' invention.

There is nothing in the Cunningham ('116) reference which discloses, teaches or suggests to one skilled in the art how to modify the reference to provide the composition claimed by Applicants', the unexpected ability to reduce the amount of MMT needed to provided a desired level of fuel performance, or the ability to reduce deposits in the

exhaust systems of engines or to clean the intake and exhaust systems of internal combustion engines.

Clearly, when viewed in this light the Nelson ('723) reference nor the Cunningham ('116) reference disclose, teach, or suggest the use of an additive composition allowing for lower levels of MMT while retaining engine performance as claimed in Applicants' present invention.

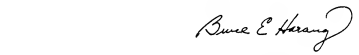
The Examiner has stated in response to Applicants' previous arguments that:

> Applicant's arguments have been fully considered but they are not persuasive.
>
> Applicant argues that adding the MMT to the additive package before mixing into the fuel as opposed to adding the MMT to the fuel before or after mixing in the additive package is not obvious. Applicant argues that by practicing the present invention lower amounts of MMT is required to maintain the anti-knock performance and ORI reduction.
>
> Applicant has provided no examples to support his argument. The 2 examples set forth on page 19 do not show what Applicant is alleging. Furthermore, it would be reasonable to expect that less MMT would be required because the fuel conditioner reduces the deposits in the intake system and combustion chamber, thus requiring less octane enhancement.

Applicant respectfully traverses this basis of rejection. Applicants respectfully but strenuously argue that simply rejecting examples as not being pertinent without stating a basis is improperly using opinion to overcome the fact that the Examiner has no valid basis of rejection in view of Applicants previous and present arguments. If the Examiner believes the examples are lacking then a basis for this is required. In addition, "...reasonable to expect..." is not a proper basis for rejection either. Instead, a reference must " ...disclose or fairly suggest..." within its four corners the claimed invention to which it is applied against. There is clearly no such "...disclosure or fair suggestion..." here.

In view of the remarks herein, and the amendments hereto, it is submitted that this application is in condition for allowance, and such action and issuance of a timely Notice of Allowance is respectfully solicited.

Respectfully submitted,



Bruce E. Harang
Registration No. 29,720
Tel.: (360) 903-4693